

Appl. No. 10/735,373
Amdt. Dated 4 August 2005
Reply to Office Action of 7 March 2005

Attorney Docket No. 26.0263 US

Page 4 of 6

REMARKS

Claims 1-11 are pending in the application. Claims 1 and 8-10 were rejected in the Office Action. Applicants thank the Examiner for indicating that claims 2-7 include allowable subject matter.

Claims 1 and 7-10 have been amended to delete reference numerals relating to the preferred embodiments of the present invention illustrated in the drawings and described in the Detailed Description section of the specification. Applicants have amended claims 1 and 8 and added claim 11 (shown in the Listing of Claims attached hereto) in order to more particularly and completely claim the present invention. Claims 1 and 8, as amended, clarify that the present invention pertains to an acoustic tool with at least one monopole source and claim 11 specifies that the acoustic tool has an upper and lower monopole. Support for the amendments may be found, for example, on page 7, paragraph 37, of the specification. No new matter has been introduced.

The Examiner has rejected claim 1 under 35 U.S.C. 102(b) as being anticipated by Vanderschel (US 4,531,204), Marks (US 3,056,464) and Smith (US 2,970,666); and under 35 U.S.C. 103(a) as being unpatentable over Tereshenko et al. (USSR 684,481) in view of Vanderschel or Marks. The Examiner has rejected claims 8-10 under 35 U.S.C. 103(a) as being unpatentable over Marks in view of Vanderschel and Sinha et al. (US 2003/0167835 A1). Reconsideration is requested.

The references cited by the Examiner in support of the 102(b) rejection of claim 1 and the 103(a) rejection of claim 8 do not disclose or suggest methods and systems for calibrating acoustic receivers with the receivers mounted to the tool. As discussed in the Background section of the present specification, prior calibration techniques calibrate the acoustic receivers before they are mounted to a tool. The present invention calibrates the acoustic receivers with the receivers mounted to the tool. The calibration of the acoustic receivers while mounted to the tool results in more accurate logging data. See, for example, pages 3 and 6 of the specification.

Appl. No. 10/735,373
Amdt. Dated 4 August 2005
Reply to Office Action of 7 March 2005

Attorney Docket No. 26.0263 US

Page 5 of 6

Applicants respectfully disagree with the Examiner in respect to the teachings of the cited references. In this, the Examiner fails to show how the cited references teach *in situ* calibration of acoustic receivers as specified in the present claims. Moreover, the Examiner does not provide adequate teaching, suggestion or motivation to combine the teachings of the cited references as proposed by the Examiner in the Office Action. In particular, the Examiner fails to show how Tereshenko might be modified by Vanderschel or Marks. Tereshenko relates to an in-laboratory calibration of an ultrasonic type tool having an "acoustic scanning radiator 10" that functions both as a source and as a receiver. The cited portions of Vanderschel and Marks provide no teaching, suggestion or motivation for modifying Tereshenko as proposed by the Examiner since in Tereshenko the "acoustic radiator 10 scans the calibration cylinder 3 with pulses of electrical vibrations and receives the reflected elastic pulses." See, Tereshenko at page 5.

In contrast with the cited prior art, claim 1 specifies:

"calibrating a plurality of acoustic receivers with the plurality of acoustic receivers mounted to the acoustic tool."

Claim 8 specifies:

"a set of instructions executable by the computer that, when executed, automatically calibrates each of the plurality of receivers while the receivers are mounted on the acoustic tool."

The teachings of the references discussed by the Examiner in the Office Action do not disclose or suggest calibration of a plurality of acoustic receivers while the receivers are mounted on an acoustic tool. Furthermore, applicants have amended claims 1 and 8 and added claim 11, as discussed above, to clarify that the present

Appl. No. 10/735,373
Amdt. Dated 4 August 2005
Reply to Office Action of 7 March 2005

Attorney Docket No. 26.0263 US

Page 6 of 6

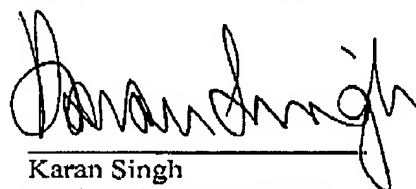
invention relates to an acoustic tool having at least one monopole source. It is applicants who first recognized that the claimed features of the present invention would provide enhanced logging data. The prior art of record does not disclose or suggest *in situ* calibration of a plurality of acoustic receivers for purposes of enhanced acoustic measurements along a borehole. Accordingly, it is respectfully submitted that the grounds for rejection of claims 1 and 8 be withdrawn.

Accordingly, dependent claims 9-11 are not rendered obvious by the cited prior art for at least the same reasons as stated above.

In light of the above remarks, applicants believe that the present application and claims 1-11 are in proper condition for allowance. Such allowance is earnestly requested.

In the event that any additional fees or credits are due owing to this response, the Commissioner is hereby authorized to charge the amount necessary to cover any fee that may be due or to credit any overpayment to Deposit Account 50-1122.

Respectfully submitted,



Karan Singh
Registration No.: 38,698

Date: 4 August 2005
Schlumberger K.K.
2-2-1 Fuchinobe
Sagamihara-shi, Kanagawa-ken
229-0006 Japan

81-42-759-5202
81-42-753-7649(fax)